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VK GROUP

Corporate Social Responsibility Report

Sadhana Village Project

2025 - 2026



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ACKNOWLEDGEMENT

Sustainability Initiatives (SI) extends its sincere gratitude to the **VK Group** for their invaluable support and commitment towards this **Corporate Social Responsibility (CSR)** initiative at **Sadhana Village**. Their vision and dedication towards environmental sustainability and community well-being played a pivotal role in the successful implementation of this project.

Sustainability Initiatives also acknowledges the collaborative efforts of all stakeholders associated with the project. The organization's expertise in technical planning, coordination, and on-ground execution ensured that the intervention was delivered efficiently, maintaining high standards of quality, safety, and sustainability. The constructive guidance and continuous support from all partners played a key role in addressing on-site challenges and ensuring timely completion of the project.

We extend our heartfelt appreciation to the **management, staff, and residents of Sadhana Village** for their cooperation, trust, and active participation throughout the project lifecycle. Their engagement not only facilitated smooth implementation but also strengthened the relevance and long-term sustainability of the intervention.

The successful completion of this project reflects the power of collaborative action and responsible CSR practices. The collective efforts of all stakeholders have significantly contributed to improving sanitation infrastructure, reducing environmental risks, and enhancing the overall health, dignity, and quality of life of the community.

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PROJECT OVERVIEW

A. About the Report

The project marks **VK Group's first Corporate Social Responsibility (CSR) initiative** undertaken at **Sadhana Village** focused on strengthening **sanitation infrastructure and improving environmental conditions** for a vulnerable population, including **persons with psychosocial disabilities who are either orphaned children or elderly residents.** The project was conceptualised in response to **critical challenges** such as a **damaged septic system, risks of groundwater contamination**, and **inadequate wastewater management infrastructure**. Recognising the importance of safe sanitation in ensuring health, dignity, and environmental protection, the intervention adopted an integrated approach combining infrastructure development with sustainable waste management practices.

The intervention included the installation of a **10,000-liter FRP septic tank**, development of a **27.3-meter drainage pipeline network**, **18 meter outlet pipeline** and **repairing & construction** of **4 inspection chambers**. The project also covered the **supply, installation, fittings, fixtures, and connection works required for efficient wastewater management.** Additionally, a **574 running feet long and 7 feet high precast RCC compound wall** was constructed to enhance safety and infrastructure resilience. Implemented between **December 2025 and March 2026**, the project directly benefited approximately **75 residents** and staff of **Sadhana Village residing in 3 units (Kedar, Madhuvanti, and Bageshri).**

B. Implementing Partner

VK Group, through its **Corporate Social Responsibility (CSR) initiatives**, is committed to promoting environmental sustainability, community well-being, and inclusive development. As the **CSR funding partner** for the **Sadhana Village Project**, VK Group provided **financial support and strategic guidance** for the implementation of sustainable sanitation infrastructure. The organization's contribution reflects its commitment to **addressing sanitation challenges and creating long-term social impact** through improved health, safety, and environmental outcomes.

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Sustainability Initiatives is a **non-profit organization** working in the fields of environmental sustainability, community development, and climate resilience. As the implementing partner for the Sadhana Village Project, SI was responsible for **site assessment, technical planning, stakeholder coordination, and on-ground execution.** The organization supervised the **installation process, ensured quality control, and facilitated effective implementation** aligned with local needs and **long-term sustainability objectives.**

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BACKGROUND & ORGANIZATIONAL CONTEXT

A. Sectoral Context

India faces significant challenges in ensuring inclusive access to sanitation, healthcare, and social infrastructure, particularly for vulnerable populations such as persons with disabilities, orphaned children, and elderly individuals. Despite policy advancements and legal frameworks like the **Rights of Persons with Disabilities Act, 2016,** gaps persist in accessibility, awareness, and service delivery.

According to **Census 2011**, **India has approximately 2.68 crore (26.8 million) persons with disabilities**, accounting for **2.21% of the total population** . However, experts highlight that this is likely an underestimation due to underreporting and measurement challenges .

Disability in India is also deeply linked with:

- Poverty and social exclusion
- Limited access to education and healthcare
- Inadequate sanitation infrastructure

In particular, access to safe and inclusive sanitation facilities remains a major issue, especially for individuals with psychosocial and intellectual disabilities, who require assisted care and specialized infrastructure.

B. Organizational Overview

Sadhana Village operates in the **domains of disability care, community development, and sustainable rural livelihoods**, with a strong focus on **long-term rehabilitation** and social inclusion. The organization is unique for its family-like, community-integrated model of care that moves beyond institutional isolation, fostering independence, dignity, and active participation for **persons with psychosocial disabilities, along with orphaned children and elderly residents.**

With over **30+ years of service**, Sadhana Village has **supported 100+ residents** and currently accommodates approximately **170 individuals across its campus.** Beyond infrastructure, the organization provides life-skills training, vocational activities, therapeutic support, and community engagement programs, enabling residents to develop self-reliance and social confidence. It also promotes women's self-help groups, livelihood initiatives, and eco-friendly practices, integrating sustainability into daily operations. By combining care, skill development, and environmental responsibility, Sadhana Village offers a holistic and replicable model for inclusive and sustainable rehabilitation in India.

C. Need Assessment

Sadhana Village faced **significant sanitation and environmental challenges** due to **inadequate and deteriorating wastewater management infrastructure.** The facility relied on a **small and damaged septic tank,** resulting in the **leakage of untreated wastewater into the surrounding soil.** This led to **contamination** of a nearby **borewell** the primary water source posing serious health risks to residents, including persons with psychosocial disabilities, elderly individuals, and children.

This situation reflects a broader national concern, as **inadequate sanitation contributes to nearly 70% of water contamination in India (NITI Aayog, 2018)** and is closely associated with **increased risks of waterborne diseases (World Health Organization [WHO], 2022).** Furthermore, the lack of an integrated drainage system led to inefficient wastewater flow and localized pollution.

Within **Buildings (Kedar, Madhuvanti, and Bageshri units)**, approximately **75 individuals** depended on this infrastructure, highlighting the urgent need for a safe, efficient, and **sustainable sanitation solution** to safeguard public health and the environment.



Existing Site Conditions and Infrastructure Overview

ABOUT THE INTERVENTION

The intervention at Sadhana Village was designed as a **targeted infrastructure upgrade** to address **critical sanitation and environmental challenges** identified on-site. The project focused on **improving wastewater management systems** to ensure safe disposal, prevent groundwater contamination, and enhance overall hygiene conditions for residents.

Recognising the **vulnerability of the population** including persons with psychosocial disabilities, elderly individuals, and children the intervention adopted a **sustainable and long-term approach**, integrating **durable infrastructure** with efficient design and **low-maintenance solutions.** The project also aimed to strengthen environmental protection measures while improving the reliability and functionality of existing systems.

A. Project Objectives

The key objectives of the intervention were:

- To **eliminate groundwater contamination** by replacing the damaged septic system serving Building 1 units
- To **improve sanitation and hygiene conditions** for residents within the targeted units.
- To establish a **durable, low-maintenance sanitation system** using FRP, HDPE, and RCC materials.
- To reduce **environmental pollution and associated health risks** through proper wastewater treatment and disposal.
- To enhance the **functionality and resilience of sanitation infrastructure** within the selected buildings.



Installation of FRP Septic Tank and Inspection Chamber

B. Scope of Work

The scope of the project included the design, supply, and installation of key sanitation and supporting infrastructure components:

- Installation of a **10,000-liter FRP septic tank** with a three-chamber system
- Development of a **27.3-meter drainage pipeline network** using HDPE, RCC, and PVC pipes
- **Construction and repair of inspection chambers** for monitoring and maintenance
- Establishment of a **precast compound wall (574 running feet, 7 feet height)** for safety and boundary protection
- Integration of the **new system with existing sanitation infrastructure** across Building No.1
- Implementation of **microbial treatment solutions** to improve waste decomposition and reduce maintenance.









Sanitation and Site Infrastructure Development Works

TECHNICAL INTERVENTION DETAILS

A. Water Management & Septic System

The intervention included the installation of a **10,000-liter FRP septic tank** to replace the existing damaged system serving **Buildings (Kedar, Madhuvanti, and Bageshri units)**. The system was designed to ensure efficient wastewater treatment, prevent leakage, and eliminate the risk of groundwater contamination. The septic tank is supported by a **warranty period of 22 months**, with an expected **operational lifespan** of approximately **18–20 years**, based on vendor specifications and typical performance under proper maintenance conditions.

To enhance treatment efficiency, a **microbial culture solution (Micro 110-SP8 bioculture powder)** was introduced into the system. A total of **4 kg (four 1 kg packets)** was applied during installation. This microbial treatment supports the **biological breakdown of organic waste**, **improving decomposition efficiency** and **reducing sludge accumulation.** The effectiveness of the microbial culture is expected to last for approximately **1 year**, after which replenishment may be required.

The **FRP material** offers **high corrosion resistance, leak-proof performance**, and **long service life**, making it well-suited for decentralized sanitation systems. FRP septic tanks are considered an **environmentally preferable solution**, as their **durable and sealed design** significantly **reduces the risk of soil and groundwater contamination**. Additionally, their **lightweight nature** enables easier installation and minimizes construction-related environmental disturbance. The septic tank outlet has been kept open, allowing **treated wastewater to flow through the outlet pipeline** and percolate into the designated peripheral field area. This facilitates **natural soil filtration and on-site disposal** of the effluent while preventing water stagnation, overflow, and localized flooding within the premises.



Installation of 10,000-Litre FRP Septic Tank

1. Design Population Assessment

The sanitation system was designed considering the total number of beneficiaries associated with Building 1:

Category	Approx Count
Residents	65
Staff Members	10
Total Beneficiaries	75 Persons

The design population was selected based on current occupancy and expected regular usage of the sanitation facilities.

2. Water Consumption & Wastewater Generation Assumptions

For decentralized residential sanitation systems, average water consumption was considered based on standard rural and institutional usage patterns.

Parameter	Assumption
Average Water Consumption per Person	100 LPCD
Wastewater Generation Factor	80% of water consumption
Estimated Wastewater per Person	80 LPCD

Where:
LPCD = Liters Per Capita Per Day

3. Daily Wastewater Generation Assessment

The estimated daily wastewater generation was calculated as follows:

Parameters	Calculations
Design Population	75 Persons
Estimated Wastewater per Person	80 LPCD
Daily Wastewater Generation	75 x 80
Total Wastewater Generated	6,000 Liters/Day
Equivalent Flow	6 KLD

Thus, the estimated wastewater generation from Building 1 is approximately: 6,000 Liters per Day (6 KLD). This formed the basis for septic tank and drainage system sizing.

4. Hydraulic Retention Consideration

Typical decentralized septic systems require a hydraulic retention period of approximately **24–48 hours** for effective sedimentation and biological treatment. The retention capacity provided by the installed septic tank was estimated as follows:

Parameter	Value
Septic Tank Capacity	10,000 Liters
Estimated Daily Wastewater Generation	6,000 Liters/Day
Retention Capacity Calculation	10,000/6,000
Hydraulic Retention Period	1.67 Days
Equivalent Retention Time	≈ 40 Hours
Recommended Retention Period	24–48 Hours
Design Status	Adequate for decentralized wastewater treatment

Therefore, the installed septic tank provides approximately is between **1.5–2 days** retention capacity which is considered adequate for effective primary wastewater treatment under decentralized sanitation systems.

NOTE : The 10,000-liter septic tank was installed to ensure adequate wastewater treatment, hydraulic retention capacity, operational efficiency, and long-term sustainability for the projected wastewater load. The design assumptions for water consumption, wastewater generation, and septic system sizing were adopted based on the **CPHEEO Manual on Sewerage and Sewage Treatment Systems (2013), Ministry of Urban Development, Government of India**, along with standard decentralized sanitation engineering practices applicable to institutional residential facilities.

B. Pipeline & Drainage System

A **27.3-meter drainage pipeline network** was developed to facilitate efficient wastewater conveyance from the selected units to the septic system. The network was designed using a **combination of HDPE, RCC, and PVC pipes**, selected based on functional requirements and durability. **Existing drainage chambers** were **repaired, cleaned, and realigned**, while new connections were established to ensure smooth and uninterrupted wastewater flow. The use of **HDPE pipes** enhances the **environmental sustainability of the system**, as they are **recyclable, lightweight, corrosion-resistant, and associated with lower lifecycle emissions** compared to conventional materials. Their **flexibility and durability** also reduce the risk of leakages and structural failures, ensuring long-term performance.

Overall, the upgraded drainage system ensures **efficient wastewater flow, reduced blockages, and improved system reliability**, contributing to better sanitation management and environmental protection within the targeted units.



Construction and Inspection of Drainage Inspection Chamber

C. Inspection Chambers & Plumbing Integration

The intervention included the **construction and repair of 4 inspection chambers**, which play a critical role in monitoring, maintenance, and ensuring proper functioning of the drainage system. These chambers enable easy access for **cleaning, reduce the risk of blockages** and **system failure**. Additionally, plumbing connections were upgraded and integrated with the new system to ensure efficient wastewater flow and proper connectivity across the infrastructure.



Completed Inspection Chambers Installed Across the Project Site

D. Outlet Drainage Pipeline & Final Disposal

An **18-meter PVC outlet pipeline** was installed to safely channel treated wastewater from the septic system to the designated discharge area. This ensured **controlled disposal** and prevented stagnation or overflow within the premises. The outlet system supports safe percolation and natural filtration, minimizing environmental impact while maintaining system efficiency.



Completed Outlet Chamber and Disposal Pipeline for Treated Wastewater Management

E. Perimeter Infrastructure

As part of the intervention, a **precast compound wall** was constructed along the project boundary to enhance **safety, security, and protection** of infrastructure associated with **Building (Kedar, Madhuvanti, and Bageshri units)**. The wall was developed using **precast RCC poles and panels**, ensuring structural **stability, durability, and efficient installation.** The compound wall forms part of the broader campus boundary infrastructure, which extends up to approximately **842 running meters**, indicating the scale of perimeter development at Sadhana Village. The use of precast components reduced on-site construction time, minimized material wastage, and ensured consistent quality through controlled manufacturing processes. Compared to conventional methods, **precast systems are more resource-efficient** due to optimized material usage. The compound wall serves multiple functional purposes, including:

- Enhancing safety and security for residents
- Protecting sanitation infrastructure from external damage
- Providing clear boundary demarcation of the intervention area

Overall, this intervention strengthens the physical infrastructure and contributes to the long-term sustainability and operational reliability of the project.





Construction of Precast RCC Compound Wall

Summary of Key Technical Specifications	
Components	**Work Completed on Site**
Beneficiaries Covered	75 Persons
Estimated Wastewater Generation	6 KLD
Septic Tank Capacity	10,000 Liters
Drainage Pipeline Length (Septic Tank)	27.3 Meters
Outlet Drainage Pipeline Length	18 Meters
Inspection Chambers	4 Units
Compound Wall Length	574 Running Feet
Compound Wall Height	7 Feet
Microbial Culture Dosage	4 kg
Septic Tank Type	FRP Three-Chamber System





Compound Wall and Drainage Infrastructure Development

RESULTS & IMPACT ANALYSIS

A. Outputs and Outcomes

The intervention effectively addressed sanitation challenges within **Buildings (Kedar, Madhuvanti, and Bageshri units)**, directly benefiting approximately **75 individuals (around 65 residents and 10 staff members)**. By improving access to **safe and functional sanitation infrastructure**, the project reduced exposure to contaminated water sources and enhanced hygiene conditions. The targeted approach ensured that high-risk areas were prioritized, resulting in immediate **improvements in sanitation and daily living conditions.**

B. Effectiveness, Efficiency, and Impact

The project demonstrated strong efficiency through the use of durable and sustainable materials, ensuring long-term performance and reduced maintenance:

- **FRP Septic Tank: Lifespan** of approximately **18 - 20 years** & **warranty up to 22 months**, with high corrosion resistance and minimal leakage risk.
- **HDPE Pipes:** Expected service **life of 50+ years**, with high flexibility, chemical resistance, and low failure rates
- **RCC Components:** Structural **lifespan of 30–40 years**, ensuring durability and load-bearing strength
- **Microbial Treatment:** The incorporation of **Micro 110-SP8 microbial culture (4 kg dosage)** enhances biological treatment efficiency and reduces sludge accumulation, contributing to improved system performance over an estimated **1 year effectiveness period.**

These features ensure a low-maintenance, cost-effective and long-lasting sanitation system optimizing resource use while enhancing operational efficiency.

K E Y I M P A C T S



Cleaner Environment



Better Health & Hygiene



Safe Sanitation Access



Low Maintenance System



Cost Effective & Sustainable



Long - Term Performance

ENVIRONMENTAL SUSTAINABILITY & SDGS

The sanitation system implemented in **Buildings (Kedar, Madhuvanti, and Bageshri units)** adopts a decentralized wastewater management approach through a septic tank system, integrating environmental sustainability with improved sanitation infrastructure. The intervention contributes to multiple United Nations Sustainable Development Goals (SDGs) as outlined below:



- **SDG 3: Good Health and Well-being**

Target - Reduce illnesses from hazardous water and pollution

Contribution - By preventing leakage of untreated wastewater and improving sanitation infrastructure for 75 beneficiaries, the project reduces exposure to contaminated water and lowers health risks.



- **SDG 6: Clean Water and Sanitation**

Target 6.2 - Access to adequate sanitation

Target 6.3 - Improve water quality

Contribution - The installation of a 10,000-liter septic tank and 27.3-meter drainage system enables effective on-site wastewater treatment, reducing groundwater contamination and ensuring safe sanitation practices



- **SDG 10: Reduced Inequalities**

Target 10.2 - Promote social inclusion

Contribution - The project improves sanitation access for persons with psychosocial disabilities and other vulnerable residents, ensuring equitable access to basic services and enhancing dignity and inclusion.



- **SDG 11: Sustainable Cities and Communities**

Target 11.1 - Access to safe and basic services

Contribution - By strengthening sanitation infrastructure within a community-based residential setting, the project enhances safety, resilience, and quality of living conditions.



- **SDG 13: Climate Action**

Target 13.2: Integrate climate measures

Contribution - The decentralized system operates without continuous energy input and minimizes the need for large-scale infrastructure, resulting in a lower environmental footprint.

CONCLUSION & KEY TAKEAWAYS

The Sadhana Village CSR initiative demonstrates the effectiveness of targeted infrastructure interventions in addressing critical sanitation challenges within specific residential units. By focusing on **Buildings (Kedar, Madhuvanti, and Bageshri units),** the project ensured efficient resource utilization while delivering meaningful and measurable impact for the residents and staff.

The intervention significantly strengthened sanitation infrastructure through the installation of a reliable and integrated wastewater management system, reducing environmental risks such as soil and groundwater contamination. It also enhanced hygiene conditions, safety, and overall quality of life for **75 beneficiaries**, including **persons with psychosocial disabilities, elderly residents, and children**, thereby promoting dignity and well-being.

The project highlights the importance of integrating sustainability, technical efficiency, and community-focused planning in CSR initiatives. It demonstrates how the use of durable materials, appropriate technologies, and structured implementation can ensure long-term functionality, reduced maintenance, and improved system resilience.

Key takeaways include the value of targeted interventions in high-risk areas, the importance of sustainable and resilient infrastructure design, and the role of CSR in bridging critical infrastructure gaps in vulnerable communities. The initiative also emphasizes the potential of decentralized sanitation solutions in institutional settings.

Overall, the project serves as a replicable and scalable model for improving sanitation systems, offering valuable insights for similar community-based interventions across India.



Bhoomi Pujan Ceremony Marking the Commencement of Project Activities



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